CLAIMS

 A material for an organic electroluminescence device comprising a compound represented by the following general formula
 (1):

$$\begin{array}{c|c}
 & X_1 = & X_2 \\
 & X_3 = & X_2 \\
 & R_2 & n
\end{array}$$
(1)

where:

L represents a linking group having at least one meta bond; R_1 and R_2 each independently represent a hydrogen atom, an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an alkoxy group which has 1 to 50 carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkyl group which has 7 to 50 ring carbon atoms and which may have a substituent, an alkenyl group which has 2 to 50 carbon atoms and which may have a substituent, an alkylamino group which has 1 to 50 carbon atoms and which may have a substituent, an arylamino group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkylamino group which has 7 to 50 ring carbon atoms and which may have a substituent, an arylamino group which has 7 to 50 ring carbon atoms and which may have a substituent, an arylamino group which has 8 to 50 ring carbon atoms and which may have a substituent, or a

cyano group;

 X_1 to X_3 each independently represent =CR- or =N-, at least one of X_1 to X_3 representing =N- where R represents an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, an alkoxy group which has 1 to 50 carbon atoms and which may have a substituent, an aralkyl group which has 7 to 50 ring carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, a carboxyl group, a halogen atom, a cyano group, a nitro group, or a hydroxyl group; and

n represents an integer of 1 to 5.

2. A material for an organic electroluminescence device according to claim 1, wherein L in the general formula (1) is represented by the following general formula (2):

$$Ar_1 \xrightarrow{X_5} X_6 \xrightarrow{R_3} q \qquad (2)$$

where:

 X_4 to X_7 each independently represent =CR- or =N- where R represents any one of the same groups as those described above;

R₃ represents a hydrogen atom, an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an alkoxy group which has 1 to 50 carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkyl group which has 7 to 50 ring carbon atoms and which may have a substituent, an alkenyl group which has 2 to 50 carbon atoms and which may have a substituent, an alkylamino group which has 1 to 50 carbon atoms and which may have a substituent atoms and which may have a substituent, an aralkylamino group which has 7 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, or a cyano group, and two or more R₃s may be included;

Ar₁ represents a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an aryloxy group or aryleneoxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an arylamino group or aryleneamino group which has 5 to 50 ring carbon atoms and which may have a substituent, or an aryl group or arylene group which has 6 to 50 ring carbon atoms and which may have a substituent;

Ar₂ represents a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an aryleneoxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aryleneamino group which has 5 to 50 ring carbon atoms and which may have a substituent, or an arylene group which has 6 to 50 ring carbon atoms and which may have a substituent; and

p represents an integer of 1 to 20 and q represents an integer of 1 to 20.

3. A material for an organic electroluminescence device according to claim 2, wherein Ar_1 has a substituent represented by any one of the following general formulae (3) to (8):

where:

R represents any one of the same groups as those described above, and when two or more Rs are included, Rs may bond to each

other to form a ring structure, and a and b each represent an integer of 0 to 4;

V represents a single bond, $-CR_0R_0'$ -, $-SiR_0R_0'$ -, -O-, -CO-, or $-NR_0$ where R_0 and R_0' each independently represent a hydrogen atom, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, or an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, and

E represents a cyclic structure represented by a circle surrounding a symbol E, and represents a cycloalkane residue which has 3 to 20 ring carbon atoms and which may have a substituent, and a carbon atom of which may be substituted by a nitrogen atom, an aromatic hydrocarbon residue which has 4 to 50 ring carbon atoms and which may have a substituent, or a heterocyclic residue which has 4 to 50 ring atoms and which may have a substituent;

4. A material for an organic electroluminescence device according to claim 1, wherein L in the general formula (1) is represented by the following general formula (9):

where:

 X_{11} to X_{14} each independently represent =CR- or =N- where R represents any one of the same groups as those described above;

R₆ represents a hydrogen atom, an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an alkoxy group which has 1 to 50 carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkyl group which has 7 to 50 ring carbon atoms and which may have a substituent, an alkenyl group which has 2 to 50 carbon atoms and which may have a substituent, an alkylamino group which has 1 to 50 carbon atoms and which may have a substituent, an arylamino group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkylamino group which has 7 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, or a cyano group, and two or more R₆s may be included;

Ar₃ and Ar₄ each independently represent a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an aryleneoxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aryleneamino group which has 5 to 50 ring carbon atoms and which may have a substituent, or an arylene group which has 6 to 50 ring carbon atoms and which may have a substituent;

and

s represents an integer of 0 to 20, t represents an integer of 1 to 20, and u represents an integer of 0 to 20.

5. A material for an organic electroluminescence device according to claim 1, wherein L in the general formula (1) is represented by the following general formula (10):

where:

 X_{15} to X_{17} each independently represent =CR- or =N- where R represents any one of the same groups as those described above;

R₇ represents a hydrogen atom, an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an alkoxy group which has 1 to 50 carbon atoms and which may have a substituent, an aryloxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkyl group which has 7 to 50 ring carbon atoms and which may have a substituent, an alkenyl group which has 2 to 50 carbon atoms and which may have a substituent,

an alkylamino group which has 1 to 50 carbon atoms and which may have a substituent, an arylamino group which has 5 to 50 ring carbon atoms and which may have a substituent, an aralkylamino group which has 7 to 50 ring carbon atoms and which may have a substituent, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, or a cyano group, and two or more R₇s may be included;

Ar₅ to Ar₇ each independently represent a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, an aryleneoxy group which has 5 to 50 ring carbon atoms and which may have a substituent, an aryleneamino group which has 5 to 50 ring carbon atoms and which may have a substituent, or an arylene group which has 6 to 50 ring carbon atoms and which may have a substituent;

v represents an integer of 0 to 20, w represents an integer of 1 to 20, x represents an integer 0 to 20, and y represents an integer of 0 to 20.

6. A material for an organic electroluminescence device according to claim 4, wherein the material has at least one substituent represented by any one of the following general formulae (3) to (8):

where:

R represents any one of the same groups as those described above, and when two or more Rs are included, Rs may bond to each other to form a ring structure, and a and b each represent an integer of 0 to 4;

V represents a single bond, $-CR_0R_0$ '-, $-SiR_0R_0$ '-, -O-, -CO-, or $-NR_0$ where R_0 and R_0 ' each independently represent a hydrogen atom, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, or an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, and

E represents a cyclic structure represented by a circle surrounding a symbol E, and represents a cycloalkane residue which has 3 to 20 ring carbon atoms and which may have a substituent, and a carbon atom of which may be substituted by a nitrogen atom,

an aromatic hydrocarbon residue which has 4 to 50 ring carbon atoms and which may have a substituent, or a heterocyclic residue which has 4 to 50 ring atoms and which may have a substituent;

7. A material for an organic electroluminescence device according to claim 5, wherein the material has at least one substituent represented by any one of the following general formulae (3) to (8):

where:

R represents any one of the same groups as those described above, and when two or more Rs are included, Rs may bond to each other to form a ring structure, and a and b each represent an integer of 0 to 4;

 $V \mbox{ represents a single bond, $-CR_0R_0$'-, $-SiR_0R_0$'-, $-O-$, $-CO-$, or $-NR_0$ where R_0 and R_0' each independently represent a hydrogen $-NR_0$ where R_0 and R_0' each independently represent a hydrogen$

atom, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent, a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent, or an alkyl group which has 1 to 50 carbon atoms and which may have a substituent, and

E represents a cyclic structure represented by a circle surrounding a symbol E, and represents a cycloalkane residue which has 3 to 20 ring carbon atoms and which may have a substituent, and a carbon atom of which may be substituted by a nitrogen atom, an aromatic hydrocarbon residue which has 4 to 50 ring carbon atoms and which may have a substituent, or a heterocyclic residue which has 4 to 50 ring atoms and which may have a substituent;

- 8. A material for an organic electroluminescence device according to any one of claims 1 to 7, wherein the material comprises a host material in a light emitting layer of an organic electroluminescence device.
- 9. An organic electroluminescence device comprising an organic thin film layer composed of one or more layers including at least a light emitting layer, the organic thin film layer being interposed between a cathode and an anode, wherein at least one layer of the organic thin film layer contains the material for an organic electroluminescence device according to any one of claims 1 to 7.

- 10. An organic electroluminescence device according to claim 9, wherein the light emitting layer contains a host material and a phosphorescent material, and the host material contains the material for an organic electroluminescence device according to any one of claims 1 to 7.
- 11. An organic electroluminescence device according to claim 9, wherein a reducing dopant is added to an interfacial region between the cathode and the organic thin film layer.